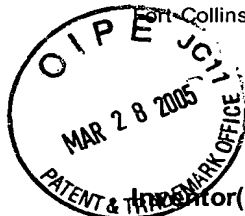


IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE



Inventor(s): Janine L. Helms

Confirmation No.: 8820

Application No.: 09/745,380

Examiner: Qureshi, S.

Filing Date: 12-18-00

Group Art Unit: 2155

Title: Thin Server with Printer Management

Mail Stop Appeal Brief-Patents  
Commissioner For Patents  
PO Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Sir:

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 2-22-05.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) \$500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

( ) (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

( ) one month	\$120.00
( ) two months	\$450.00
( ) three months	\$1020.00
( ) four months	\$1590.00

( ) The extension fee has already been filled in this application.

(X) (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account **08-2025** the sum of \$500.00. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

(X) I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:  
Commissioner for Patents, Alexandria, VA  
22313-1450. Date of Deposit: 3-25-05

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( ) I hereby certify that this paper is being transmitted to the Patent and Trademark Office facsimile number \_\_\_\_\_ on \_\_\_\_\_

Number of pages:

Typed Name: Mary Meegan

Signature: Mary Meegan

Respectfully submitted,

Janine L. Helms

By

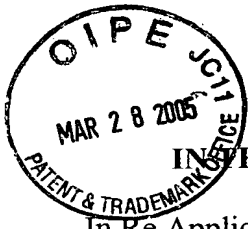
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: Janine L. Helms	)	
	)	Group Art Unit: 2155
Serial No.: 09/745,380	)	
	)	Examiner: Qureshi, Shabana
Filed: December 18, 2000	)	
	)	Atty. Docket No.: 10004477-1
For: <b>Thin Server with Printer</b>	)	
<b>Management</b>	)	

**APPEAL BRIEF UNDER 37 C.F.R. §41.37**

Mail Stop: Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

This Appeal Brief under 37 C.F.R. §41.37 is submitted in support of the Notice of Appeal filed February 22, 2005, responding to the Final Office Action mailed October 21, 2004.

It is not believed that extensions of time or fees are required to consider this Appeal Brief. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. §1.136(a), and any fees required therefor are hereby authorized to be charged to Deposit Account No. 08-2025.

03/29/2005 HALI11 00000041 082025 09745380  
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### **I. Real Party in Interest**

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

### **II. Related Appeals and Interferences**

There are no known related appeals or interferences that will affect or be affected by a decision in this Appeal.

### **III. Status of Claims**

Claims 1-14 stand finally rejected. No claims have been allowed. The final rejections of claims 1-14 are appealed.

### **IV. Status of Amendments**

This application was originally filed on December 18, 2000 with fourteen (14) claims. In a Response filed July 1, 2004, Applicant amended claims 1-6 and 8-14. All of the amendments have been entered and no other amendments have been made to any of the pending claims. The claims in the attached Claims Appendix (see below) reflect the present state of those claims.

## **V. Summary of Claimed Subject Matter**

The claimed inventions are summarized below with reference numerals and references to the written description (“specification”) and drawings. All references are shown in the application at least where indicated herein.

In claim 1, Applicant claims a thin print server (402, Figs. 4 and 6) having no physical user interface. Specification, page 7, line 1 to page 8, line 3; page 12, line 5 to page 18, page 8. As defined by claim 1, the thin print server comprises one or more processors (602, Fig. 6), and a memory (604, Fig. 6) associated with the one or more processors. Specification, page 12, lines 20-22. The thin print server further comprises a network interface (605, Fig. 6) providing full-time connection to a network (406, Fig. 4) and remote access to the thin print server by one or more client computers (402, Figs. 4 and 5). Specification, page 12, lines 20, 23. The thin print server also comprises a user interface module (615, Fig. 6) stored in the memory and executable on the one or more processors providing remote management of the thin print server by the one or more client computers, the user interface module precluding local management of the thin print server. Specification, page 13, line 10; page 14, lines 17-20; page 15, lines 3-9.

As is further defined by claim 1, the thin print server further comprises a printer administration module (618, Fig. 6) stored in the memory and executable on the one or more processors for discovering one or more printers (410, Fig. 4) connected to the network and creating one or more shared network print objects, each shared network print object representing a printer connected to the network as a shared network printer. Specification, page 13, line 11; page 14, lines 17-23; page 15, lines 12-18; page 18, line 19 to page 19, line 4. Finally, the thin printer server comprises a printer serving module (616, Fig. 6) stored in the memory and executable

on the one or more processors for receiving print jobs, managing print queues, and forwarding print jobs to a shared network printer for printing. Specification, page 13, line 10; page 16, line 14 to page 17, line 16.

In claim 6, Applicant claims a system (400, Fig. 4) for printing over a network (406, Fig. 4). Specification, page 9, lines 3-14. As defined by claim 6, the system comprises one or more client computers (402, Figs. 4 and 5), and one or more network printers (410, Fig. 4). The system further comprises a thin print server (402, Figs. 4 and 6) having no physical user interface but having a network interface providing full-time connection to a network and remote access to the thin print server by the one or more client computers. Specification, page 12, lines 5-18. The thin print server is configured to discover the one or more network printers and create one or more shared network print objects, each shared network print object representing a network printer connected to the network as a shared network printer. Specification, page 13, line 11; page 14, lines 17-23; page 15, lines 12-18; page 18, line 19 to page 19, line 4. The one or more client computers are configured to access and manage the thin print server through a Web browser (528, Fig. 5). Specification, page 10, lines 21-24; page 13, lines 11-14; page 14, lines 15-20; page 18, lines 15-16. The one or more client computers are further configured to designate a shared network print object and send a print job to the designated shared network print object while executing an application program (528, Fig. 5). Specification, page 19, lines 16-18. Finally, the thin print server is further configured to receive a print job, manage print queues, and forward a print job to a shared network printer for printing. Specification, page 16, line 14 to page 17, line 16.

In claim 11, Applicant claims a method of printing over a network (406, Fig. 4). As defined in claim 11, the method comprises accessing a thin print server (402,

Figs. 4 and 6) having no physical user interface from a remote computer (404, Figs. 4 and 5). Specification, page 12, lines 5-18. The method further comprises, through the remote computer, managing the thin print server such that the thin print server discovers one or more printers (410, Fig. 4) connected to the network and creates one or more shared network print objects, each shared network print object representing a printer connected to the network as a shared network printer. Specification, page 14, lines 15-23; page 15, lines 12-18; page 18, line 15 to page 19, line 4. The method further comprises designating a shared network print object from an application program (528, Fig. 5) executing on the remote computer. Specification, page 19, lines 16-18.

As is further defined by claim 11, the method comprises sending a print job from the remote computer to the designated shared network print object for printing (Specification, page 19, lines 16-18), receiving the print job at the thin print server (Specification, page 16, lines 16-18; page 19, lines 18-20), managing the print job at the thin print server in one or more print queues (Specification, page 16, line 18 to page 17, line 16; page 19, lines 18-20), and forwarding the print job from the thin print server to a shared network printer for printing (Specification, lines 20-23).

## **VI. Grounds of Rejection to be Reviewed on Appeal**

The following grounds of rejection are to be reviewed on appeal:

1. Claims 11-14 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Levine, et al. ("Levine," U.S. Pat. No. 5,974,234). Applicant respectfully traverses this rejection.

2. Claims 1-10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Mansbery, et al. (“Mansbery,” U.S. Pat. No. 6,121,593) in view of Levine. Applicant respectfully traverses this rejection.

## **VII. Arguments**

The Appellant respectfully submits that claims 11-14 are not anticipated under 35 U.S.C. § 102(b), and that claims 1-10 are not obvious under 35 U.S.C. § 103(a). Applicant respectfully requests that the Board of Patent Appeals overturn the final rejections of those claims for the reasons discussed below.

### **I. Claim Rejections - 35 U.S.C. § 102(b)**

Claims 11-14 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Levine, et al. (“Levine,” U.S. Pat. No. 5,974,234). Applicant respectfully traverses this rejection.

It is axiomatic that “[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration.” *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983). Therefore, *every claimed feature* of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(b).

In the present case, not every feature of the claimed invention is represented in the Levine reference. Applicant discusses Applicant’s claims and various aspects of the rejection in the following.

**A. Independent Claim 11**

Applicant's independent claim 11 provides as follows (emphasis added):

11. A method of printing over a network, comprising:  
*accessing a thin print server having no physical user interface from a remote computer;*  
through the remote computer, managing the thin print server such that the thin print server *discovers one or more printers connected to the network* and *creates one or more shared network print objects*, each shared network print object representing a printer connected to the network as a shared network printer;  
designating a shared network print object from an application program executing on the remote computer;  
sending a print job from the remote computer to the designated shared network print object for printing;  
*receiving the print job at the thin print server;*  
*managing the print job at the thin print server* in one or more print queues; and  
*forwarding the print job from the thin print server to a shared network printer for printing.*

**1. "Accessing a Thin Print Server"**

During prosecution of the instant patent application, Applicant amended claim 11 to recite "accessing a thin print server". Regarding the "thin print server" limitation, Applicant notes that the term "thin server" is a term of art in the computing arts that has a specific meaning. As is defined by webopedia.com, a continually-updated online dictionary and search engine for computer and Internet technology definitions, "thin client" refers to:



(thin client) In client/server applications, *a client designed to be especially small so that the bulk of the data processing occurs on the server.*

Although the term thin client usually refers to software, it is increasingly used for computers, such as network computers and Net PCs, that are designed to serve as the clients for client/server architectures. *A thin client is a network computer without a hard disk drive*, whereas a fat client includes a disk drive. ([www.webopedia.com](http://www.webopedia.com), definition of “thin server”, emphasis added)

Because the term “thin client” is an established term of art, the Examiner must consider this limitation when examining Applicant’s claim 11.

Applicant notes that the disclosure regarding Applicant’s “thin print server” is consistent with that provided in the above excerpt. As is described by Applicant on page 12, lines 5-13 of the application (emphasis added):

as a thin server, the network print appliance 402 is optimized to deliver only the capabilities for which it is designed, *without including unnecessary software or hardware features related to other general purpose network servers or computers.* For example, the network print appliance 402 is designed to be accessed, managed, and utilized from remote locations only, such as from a remote computer 404 or remote server 408, and therefore provides no physical user interface.

Turning to the disclosure of the Levine reference, Levine simply does not teach use of a thin server. Instead, Levine discloses a “proxy server 107A” that couples clients with document processing devices. Levine, column 8, lines 47-50. At no point in the Levine disclosure is Levine’s server described as a “thin server” or “thin print server”. Moreover, nothing in the Levine disclosure suggests that Levine’s server is configured in

the form of a thin server. Due at least to this shortcoming, Levine does not anticipate Applicant's claim 11.

## **2. "Having No Physical Interface"**

As is noted above, Applicant amended claim 11 to recite accessing a thin print server "having no physical user interface". Regarding the "no physical user interface", Applicant notes that nowhere does Levine state that Levine's server 107A comprises "no physical user interface". On this point, the Examiner contends that, since Levine does not explicitly show or describe such an interface, Levine therefore affirmatively teaches a server having no physical user interface. Applicant disagrees. To the contrary, Levine's mere omission as to whether a physical user interface is or is not used in conjunction with Levine's server does *not* establish that Levine's server does in fact comprise no such physical user interface. Applicant notes that Applicant's explicit recital of a thin print server that does not comprise a physical user interface must be identified in the reference for a proper rejection under 35 U.S.C. § 102.

## **3. Discovering Printers and Creating Shared Network Print Objects**

Levine further fails to disclose "managing the thin print server such that the thin print server discovers one or more printers connected to the network and creates one or more shared network print objects, each shared network print object representing a printer connected to the network as a shared network printer", as is explicitly recited in Applicant's independent claim 11.

In support of the position that Levine does teach such management of a print server and discovery of printers connected to a network, the Office Action identifies

column 17, lines 30-46 of the Levine reference. That portion of the Levine reference provides, in its entirety, as follows:

Discovery or Installation Commands

AddDevice (LPCTSTR DeviceName, LPCTSTR IPAddress,  
LPCTSTR DeviceType)

For each device to be added, an LPR Port and a LPR queue associated with the device are set up on the NT Server. The program started by the AddDevice request adds the LPR Port and associated LPR queue for the device being added and loads an appropriate driver for the device.

DeleteDeviceSettings(LPCTSTR DeviceName)

The NT Server removes (1) an LPR Port and Queue, both of which correspond to the device being deleted, (2) any registry entries associated with the device, and (3) an appropriate entry from the file in the NT Server, the entry corresponding with the device.

Although this excerpt of the Levine reference does include the word “Discovery,” it is clear that it simply does not describe “managing the thin print server such that the thin print server discovers one or more printers connected to the network and creates one or more shared network print objects, each shared network print object representing a printer connected to the network as a shared network printer” as is explicitly recited in claim 11. Again, anticipation requires the disclosure in a single prior art reference of *each element* of the claim under consideration. *W. L. Gore & Associates*, 721 F.2d 1540, 220 USPQ 303.

#### **4. Receiving, Managing, and Sending the Print Job from the Thin Print Server**

In addition to providing a printer administration functionality, the thin print server, as defined by claim 11, further provides a print server functionality. As is recited in claim 11, that functionality includes each of “receiving the print job at the thin print server,” “managing the print job at the thin print server in one or more print queues”, and “forwarding the print job from the thin print server to a shared network printer for printing”. Simply stated, Levine’s proxy server 107A does not perform those actions.

In Levine’s system, the print server functionality is provided by a “document manager 108” (see Fig. 4) or “DM.” As is described by Levine:

The Microkernel has a Document Management (DM) subsystem that performs most of the DPA/POSIX Server functionality. The DM subsystem validates user requests, queues requests, *spools document data, schedules the job for the device*, and collects and maintains status information. The DM subsystem extends the DPA/POSIX Server in some aspects, since it can be configured to handle scan jobs (for filing or faxing) and copying jobs. DM provides for document sniffing, spooling, and scheduling services. Service providers, such as Document Processing 110 can register their services with DM.

Notably, nowhere does Levine state that such actions are also performed by Levine’s server 107A. Accordingly, it follows that Levine does not teach any of “receiving the print job at the thin print server,” “managing the print job at the thin print server in one or more print queues”, and “forwarding the print job from the thin print server to a shared network printer for printing”, as are required by Applicant’s claim 11.

## 5. Printer Administration *and* Print Server Functionality

As a final point in regard to claim 11, Applicant notes that Applicant's thin server provides the functionality of both a printer administration tool and print server. This is apparent from the limitations "managing the thin print server such that the thin print server discovers one or more printers connected to the network and creates one or more shared network print objects, each shared network print object representing a printer connected to the network as a shared network printer" (printer administration), and "receiving the print job at the thin print server", "managing the print job at the thin print server in one or more print queues", and "forwarding the print job from the thin print server to a shared network printer for printing (print serving). It is clear from the foregoing that Levine does not teach a *single device*, whether it be a thin server or another type of server, that provides *both* types of functionality.

This distinction is significant, and reflects a significant feature of Applicant's invention described in claim 11. As is described on page 17, line 22 to page 18, line 8 of Applicant's specification (emphasis added):

Therefore, a preferred implementation of the network print appliance 402 includes the Hewlett Packard JetDirect 4000 Print Appliance executing the printer server module 616 along with a pre-installed version of the Hewlett Packard Web JetAdmin software product modified to, (1) support only the operating system 614 on the network print appliance 402, and (2) create shared network print objects 620 only on the network print appliance 402 itself, and not on any general-purpose network server 408 or computer 404. *The network print appliance 402 thus combines both thin print server functionality with network printer administration functionality, while retaining the small, lightweight, cost saving, characteristics common with most thin servers. This, and the minimal configuration required by the network print appliance 402, make it easy to move and install*

*practically anywhere on the network without affecting any other servers on the network.*

Given that Levine's proxy server 107A does not provide both printer administration and print server functionality, Levine's server does not provide a solution consistent with that described in the above excerpt.

#### **B. Dependent Claims**

Given that Levine does not anticipate claim 11, it follows that Levine likewise does not anticipate claims 12-14, which depend from claim 11 and incorporate all of the limitations of claim 11. Claims 12-14 are allowable over the Levine reference for at least this reason.

In addition to failing to teach or suggest several limitations of independent claim 11, Levine further fails to teach or suggest limitations contained in the claims that depend from claim 11. For example, regarding dependent claim 12, Levine does not teach or suggest a method in which a thin server "is required to create the one or more shared network print objects", "thereby preventing the creation of a shared network print object on any other network device".

#### **C. Conclusion**

Due at least to the above-noted shortcomings of the Levine reference, Applicant respectfully asserts that Levine does not anticipate Applicant's claims 11-14. Therefore, Applicant respectfully requests that the rejection of these claims be withdrawn.

## II. Claim Rejections - 35 U.S.C. § 103(a)

Claims 1-10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Mansbery, et al. ("Mansbery," U.S. Pat. No. 6,121,593) in view of Levine. Applicant respectfully traverses this rejection.

As has been acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office ("USPTO") has the burden under section 103 to establish a *prima facie* case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The Manual of Patent Examining Procedure (MPEP) section 2143 discusses the requirements of a *prima facie* case for obviousness. That section provides as follows:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

In the present case, there is no suggestion or motivation to combine the references, or make the modifications proposed in the Office Action. Furthermore, the prior art references, when combined, do not teach or suggest all of Applicant's claim

limitations. Applicant discusses the applied references and Applicant's claims in the following.

**A. The Mansbery Disclosure**

Mansbery discloses a control system that is used to control *home appliances, such as a refrigerator and oven*. As is described by Mansbery (column 1, lines 11-40, emphasis added):

Many families today have two wage earners and as a consequence, there can be a significant delay when they both return from work before the evening meal can be prepared. Not only that, but sometimes their schedules change during the day so that the time when the evening meal is to be prepared must be changed. . . . *The instant invention contemplates the remote actuation of home appliances using a specific control system*. The invention also contemplates the concept of *actuating a combination cooling and heating mechanism from a remote location so that food may be preserved in a refrigerated state during a finite period of time and then the refrigeration may be turned off and the cooking system may be actuated from a remote location*.

In view of the above, it is clear that the Mansbery disclosure is only directed to the problem of remotely controlling home appliances, such as a refrigerator/oven appliance, for purposes of meal preparation. Because of this fact, it is difficult to understand how the Mansbery reference can serve as a base reference in a rejection against claims to a "network print appliance" or a "system for printing over a network".



## **B. Applicant's Claimed Inventions**

Irrespective of whether the Mansbery disclosure is an appropriate reference to cite against Applicant's claims, Applicant notes that the Mansbery disclosure is deficient as to many explicitly recited features of Applicant's claims.

### **1. Claims 1-5**

With reference first to Applicant's independent claim 1, Applicant recites (emphasis added):

1. ***A thin print server having no physical user interface,***  
the thin print server comprising:

one or more processors;

a memory associated with the one or more processors;

a network interface providing full-time connection to a network and remote access to the thin print server by one or more client computers;

a user interface module stored in the memory and executable on the one or more processors providing remote management of the thin print server by the one or more client computers, the user interface module precluding local management of the thin print server;

a ***printer administration module*** stored in the memory and executable on the one or more processors ***for discovering one or more printers connected to the network and creating one or more shared network print objects***, each shared network print object representing a printer connected to the network as a shared network printer; and

a ***printer serving module*** stored in the memory and executable on the one or more processors ***for receiving print jobs, managing print queues, and forwarding print jobs to a shared network printer for printing.***

**(a) “Thin Print Server Having No Physical User Interface”**

As a first matter, Applicant notes that because Mansbery is directed to meal preparation control, Mansbery does not teach or suggest a “thin print server having no physical user interface”. First, Mansbery says nothing whatsoever about “printing”. Therefore, there is no support for the proposition that Mansbery teaches a “print” server, as is asserted by the Examiner. Second, Mansbery does not teach or suggest a thin server that has “no physical user interface”. To the contrary, Mansbery explicitly shows and describes elements that comprise such an interface used in conjunction with Mansbery’s “computer.” For example, Mansbery shows a keyboard 23 and a display 22 in Figure 1. Significantly, there is no teaching contained in either the Mansbery reference or the Levine reference for removing Mansbery’s physical user interface. Therefore, Mansbery *teaches away* from a thin print server that comprises “no physical user interface”. As is well established in the law, “[t]here is no suggestion to combine . . . if a reference teaches away from its combination with another source . . . A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant . . .” *Tec Air, Inc. v. Denso Manufacturing Michigan Inc.*, 192 F.3d 1353, 52 USPQ2d 1294 (Fed. Cir. 1999).

**(b) “Administration Module” and “Serving Module”**

Contrary to that alleged in the Office Action, Mansbery also does not teach or suggest a “printer administration module” or a “printer serving module”. This is

understandable given that Mansbery is not concerned about printing. This fact raises the question: If Mansbery is silent as to printing, how can Mansbery teach a *printer* administration module or a *printer* serving module? In response on this point, the Examiner stated:

However, as Examiner cited in previous office action, Column 4, lines 1-5 state the following: “. . . are equipped with “Thin Servers”. These so called “Thin-Servers are appliance-like devices that control home computer/print networks, Internet connections. . .” (Advisory Action, Continuation Sheet)

The fact that Mansbery acknowledges that “thin servers” are used to control print networks does *not* equate to a teaching that Mansbery’s server is a print server that is used to control printing. To the contrary, Mansbery uses his server to control home appliances for purposes of meal preparation. Nowhere does Mansbery suggest that his server is used to control any printing functionality whatsoever. Instead, Mansbery is simply describing the nature of the server that he uses to control the meal preparation.

With specific regard to the “printer administration module” limitation, Applicant notes that Mansbery also fails to teach or suggest a module for “discovering one or more printers connected to the network” or “creating one or more shared network print objects, each shared network print object representing a printer connected to the network as a shared network printer”. Again, since Mansbery’s invention is not concerned with printing, there would be no reason to provide a module that performs those functions.

Regarding the “printer serving module” limitation, Mansbery also fails to teach or suggest a module for “receiving print jobs, managing print queues, and forwarding print jobs to a shared network printer for printing”. Once again, because Mansbery is

not concerned with printing, it follows that Mansbery's system includes no module that performs those printing functions.

**(c) Combination of Mansbery and Levine**

In recognition of the fact that the Mansbery system does not perform the various printing-related actions recited in Applicant's claims, the Office Action combines the Levine reference with the Mansberry reference to reject Applicant's claims. In the final Office Action, the Examiner argued:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the network appliance taught by Mansbery to include details of a printer server as taught by Levine so that the network appliance can manage printers and print jobs remotely (Mansbery, column 4, lines 38-42; column 4, lines 1-5).

Applicant respectfully questions the logic of this argument. Specifically, Applicant questions why a person having ordinary skill in the art would be motivated to "modify" the Mansbery system to manage printers and print jobs. If such a modification were made, the Mansbery system would fail to perform the core functionality for which it was designed: to enable remote meal preparation. Therefore, the proposed modification would disable the primary functionality of the Mansbery system.

If, on the other hand, the Examiner is suggesting mere addition of the print control functionality to the Mansbery system, Applicant questions why a person having ordinary skill in the art would be motivated to append such a functionality to a meal preparation control system. Is the argument that a home owner could start a meal and print a document from a remote location? Such a combination simply does

not make sense. Applicant respectfully submits that a person having ordinary skill in the art would not consider such a modification without hindsight to Applicant's own disclosure or claims. Such hindsight to Applicant's invention is *per se* improper. *See Crown Operations International, Ltd. v. Solutia, Inc.*, 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002) (a determination of obviousness cannot be based on a hindsight combination of components selectively culled from the prior art to fit the parameters of the invention).

**(d) Dependent Claims**

Given that the Mansbery/Levine combination does not render claim 1 obvious, it follows that Mansbery/Levine likewise do not render obvious claims 2-5, which depend from claim 1 and incorporate all of the limitations of claim 1. Claims 2-5 are therefore allowable over for at least this reason.

Applicant further notes that the claims that depend from claim 1 contain limitations that are not taught or suggested by either Mansbery or Levine. For instance, with reference to claim 3, Applicant notes that neither Mansbery nor Levine teach a module that "is required to create the one or more shared network print objects . . . thereby preventing the creation of a shared network print object on any other network device".

In addition, regarding claim 4, Mansbery and Levine fail to teach a "printer administration module that is pre-installed". Applicant respectfully submits that the "pre-installed" recitation comprises an explicit limitation that cannot be ignored when formulating a rejection of claim 4. That limitation has, however, been ignored by the Examiner during the prosecution of the instant patent application.

**(e) Conclusion**

In view of the above, Applicant respectfully submits that claims 1-5 are allowable over Mansbery and Levine. Applicant therefore respectfully requests that the rejection as to claims 1-5 is withdrawn.

**2. Claims 6-10**

Applicant's independent claim 6 provides as follows (emphasis added):

6. A system for printing over a network, comprising:

one or more client computers;

one or more network printers;

*a thin print server having no physical user interface*

but having a network interface providing full-time connection to a network and remote access to the thin print server by the one or more client computers;

*the thin print server being configured to discover the one or more network printers and create one or more shared network print objects*, each shared network print object representing a network printer connected to the network as a shared network printer;

the one or more client computers being configured to access and manage the thin print server through a Web browser;

the one or more client computers being further configured to designate a shared network print object and send a print job to the designated shared network print object while executing an application program;

*the thin print server being further configured to receive a print job, manage print queues, and forward a print job to a shared network printer for printing.*

Regarding independent claim 6, Applicant asserts that neither Mansbery nor Levine teach or suggest a "thin print server having no physical user interface" that is

configured to “discover the one or more network printers and create one or more shared network print objects” or “receive a print job, manage print queues, and forward a print job to a shared network printer for printing”, as is required by independent claim 6. Applicant refers back to the discussions provided in the foregoing. At least because of those reasons, claim 6 is allowable over Mansbery and Levine.

Given that the Mansbery/Levine combination does not render claim 6 obvious, it follows that Mansbery/Levine likewise do not render obvious claims 7-10, which depend from claim 6 and incorporate all of the limitations of claim 1. Claims 7-10 are therefore allowable over for at least this reason. Applicant notes, however, that the dependent claims comprise limitations that are not taught or suggested by the Mansbery/Levine combination. For example, Mansbery and Levine do not teach or suggest a thin print server that is “required to create the one or more shared network print objects on the thin print server itself, thereby preventing the creation of a shared network print object on any other network device” as is required by dependent claim 8.

Furthermore, regarding dependent claim 9, Mansbery and Levine do not teach or suggest a “printer administration module being pre-installed on the thin print server” as is required by that claim.

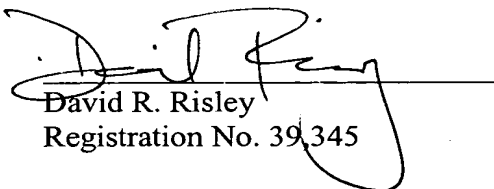
In view of the foregoing, it is respectfully submitted that each of claims 6-10 are also patentable over Mansbery/Levine and that the rejection of these claims should be withdrawn.

## VII. Conclusion

In summary, it is Applicant's position that Applicant's claims are patentable over the applied prior art references and that the rejection of these claims should be withdrawn. Appellant therefore respectfully requests that the Board of Appeals overturn the Examiner's rejection and allow Applicant's pending claims.

Respectfully submitted,

By:

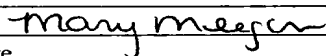
  
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**Claims Appendix under 37 C.F.R. §41.37(c)(1)(viii)**

The following are the claims that are involved in this Appeal.

1. A thin print server having no physical user interface, the thin print server comprising:

one or more processors;

a memory associated with the one or more processors;

a network interface providing full-time connection to a network and remote access to the thin print server by one or more client computers;

a user interface module stored in the memory and executable on the one or more processors providing remote management of the thin print server by the one or more client computers, the user interface module precluding local management of the thin print server;

a printer administration module stored in the memory and executable on the one or more processors for discovering one or more printers connected to the network and creating one or more shared network print objects, each shared network print object representing a printer connected to the network as a shared network printer; and

a printer serving module stored in the memory and executable on the one or more processors for receiving print jobs, managing print queues, and forwarding print jobs to a shared network printer for printing.

2. A thin print server as recited in claim 1, wherein creating one or more shared network print objects further comprises:

- installing a printer;
- configuring the printer;
- assigning a printer driver to the printer;
- monitoring the printer;
- grouping the printer;
- troubleshooting the printer; and
- establishing a print path for the printer.

3. A thin print server as recited in claim 1, wherein the printer administration module is required to create the one or more shared network print objects on the thin print server, thereby preventing the creation of a shared network print object on any other network device.

4. A thin print server as recited in claim 1, wherein the printer administration module is pre-installed on the thin print server and supports a single operating system, the single operating system being the thin print server operating system.

5. A thin print server as recited in claim 1, wherein the network interface is a Web browser based interface.

6. A system for printing over a network, comprising:

- one or more client computers;
- one or more network printers;
- a thin print server having no physical user interface but having a network interface providing full-time connection to a network and remote access to the thin print server by the one or more client computers;
- the thin print server being configured to discover the one or more network printers and create one or more shared network print objects, each shared network print object representing a network printer connected to the network as a shared network printer;
- the one or more client computers being configured to access and manage the thin print server through a Web browser;
- the one or more client computers being further configured to designate a shared network print object and send a print job to the designated shared network print object while executing an application program;
- the thin print server being further configured to receive a print job, manage print queues, and forward a print job to a shared network printer for printing.

7. A system as recited in claim 6, wherein creating one or more shared network print objects further comprises:

- installing a network printer;
- configuring the network printer;
- assigning a printer driver to the network printer;
- monitoring the network printer;
- grouping the network printer;

troubleshooting the network printer; and  
establishing a print path for the network printer.

8. A system as recited in claim 6, wherein the thin print server is required to create the one or more shared network print objects on the thin print server itself, thereby preventing the creation of a shared network print object on any other network device.

9. A system as recited in claim 6, wherein the thin print server comprises a printer administration module for discovering the one or more network printers and creating the one or more shared network print objects, the printer administration module being pre-installed on the thin print server and supporting a single operating system, the single operating system being the thin print server operating system.

10. A system as recited in claim 6, wherein the network interface is a Web browser based interface.

11. A method of printing over a network, comprising:  
accessing a thin print server having no physical user interface from a remote computer;  
through the remote computer, managing the thin print server such that the thin print server discovers one or more printers connected to the network and creates one or more shared network print objects, each shared network print object representing a printer connected to the network as a shared network printer;

designating a shared network print object from an application program  
executing on the remote computer;

sending a print job from the remote computer to the designated shared  
network print object for printing;

receiving the print job at the thin print server;

managing the print job at the thin print server in one or more print  
queues; and

forwarding the print job from the thin print server to a shared network  
printer for printing.

12. The method of claim 11, further comprising:

remotely managing the thin print server to perform:

installing a printer;

configuring the printer;

assigning a printer driver to the printer;

monitoring the printer;

grouping the printer;

troubleshooting the printer; and

establishing a print path for the printer.

13. The method of claim 11, wherein the thin print server is required to  
create the one or more shared network print objects on the thin print server itself,  
thereby preventing the creation of a shared network print object on any other network  
device.

14. The method of claim 11, wherein managing the print job at the thin print server in one or more print queues further comprises:

associating a printer option with a print queue;

holding a print job until a shared network printer is available;

holding a print job until a network administrator releases the print job;

and

storing a print job that cannot print.

**Evidence Appendix under 37 C.F.R. §41.37(c)(1)(ix)**

There is no extrinsic evidence to be considered in this Appeal. Therefore, no evidence is presented in this Appendix.

**Related Proceedings Appendix under 37 C.F.R. §41.37(c)(1)(x)**

There are no related proceedings to be considered in this Appeal. Therefore, no such proceedings are identified in this Appendix.